

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Original) A multilayer magnetic recording medium which comprises, on a nonmagnetic substrate, at least one upper binder-containing magnetic recording layer which has a thickness of less than 0.5 μm and contains finely divided magnetic pigment having a coercive force H_c of 100 – 250 kA/m, and at least one lower binder-containing layer which contains an isotropic magnetically soft pigment which is selected from $\gamma\text{-Fe}_2\text{O}_3$, Fe_3O_4 or a solid solution of these components and has a mean crystallite size of less than 10 nm.

Claim 2 (Original) A magnetic recording medium as claimed in claim 1, wherein the coercive force H_c of the pigment in the upper layer is from 130 to 220 kA/m.

Claim 3 (Original) A magnetic recording medium as claimed in claim 1, wherein the magnetic pigment in the upper layer is a metal pigment or metal alloy pigment.

Claim 4 (Original) A magnetic recording medium as claimed in claim 1, wherein the magnetic pigment in the upper layer is a hexagonal ferrite pigment or a Co-modified $\gamma\text{-Fe}_2\text{O}_3$, Co-modified Fe_3O_4 or a solid solution of these components.


Claim 5 (Original) A magnetic recording medium as claimed in claim 1, wherein the isotropic magnetically soft pigment in the lower layer has a mean crystallite size of less than 6 nm.

Claim 6 (Original) A magnetic recording medium as claimed in claim 1, wherein the lower layer has a coercive force H_c of less than 0.7 kA/m.

Claim 7 (Original) A magnetic recording medium as claimed in claim 1, wherein the lower layer has a coercive force H_c of less than 0.3 kA/m.

Claim 8 (Original) A magnetic recording medium as claimed in claim 1, wherein the amount of the magnetically soft pigment in the lower layer is from 25 to 85% by weight, based on the weight of all pigments in the lower layer.

Claim 9 (Original) A magnetic recording medium as claimed in claim 1, wherein the amount of the magnetically soft pigment in the lower layer is from 35 to 78% by weight, based on the weight of all pigments in the lower layer.

 Claim 10 A magnetic recording medium as claimed in claim 1, wherein the magnetically soft pigment in the lower layer has been surface-treated with an aluminum compound or a silicon compound or a mixture of the two compounds.

Claim 11 (Original) A magnetic recording medium as claimed in claim 1, wherein the magnetically soft pigment in the lower layer is spherical or amorphous.

Claim 12 (Original) A magnetic recording medium as claimed in claim 1, wherein the lower layer contains at least one nonmagnetic pigment in addition to the magnetically soft pigment.

Claim 13 (Original) A magnetic recording medium as claimed in claim 12, wherein the nonmagnetic pigment is acicular, having a mean longitudinal axis of from 5 to 200 nm, or spherical or amorphous, having a mean particle size of from 5 to 180 nm.

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Claim 14 (Original) A magnetic recording medium as claimed in claim 12, wherein the nonmagnetic pigment is α -Fe₂O₃.

Claim 15 (Original) A magnetic recording medium as claimed in claim 12, wherein the nonmagnetic pigment is carbon black.

Claim 16 (Original) A magnetic recording medium as claimed in claim 12, wherein the nonmagnetic pigment is a mixture of carbon black and α -Fe₂O₃.

a' Claim 17 (Withdrawn) A process for the production of a multilayer magnetic recording medium which comprises, on a nonmagnetic substrate, at least one upper binder-containing magnetic recording layer which has a thickness of less than 0.5 μ m and contains a finely divided magnetic pigment having a coercive force H_c of 100 – 250 kA/m, and at least one lower binder-containing layer which contains an isotropic magnetically soft pigment which is selected from γ -Fe₂O₃, Fe₃O₄ or a solid solution of these components and has a mean crystallite size of less than 10 nm, comprising,

-mixing, kneading and dispersing an isotropic magnetically soft pigment which is selected from γ -Fe₂O₃, Fe₃O₄ and a solid solution of these components and has a mean crystallite size of less than 10 nm with a binder, a solvent and further additives and applying the dispersion to a nonmagnetic substrate, a lower layer forming;

mixing, kneading and dispersing a finely divided magnetic pigment having a coercive force H_c of 100 – 250 kA/m with a binder, a solvent and further additives and applying the dispersion onto the lower layer, an upper magnetic recording layer forming;

orienting the moist layers in a magnetic field;

drying the moist layers until the upper layer reaches a thickness of less than 0.5 μm ; and subsequently calendering and separating.

Claim 18 (Original) A magnetic recording medium containing an upper layer, and a lower layer, said lower layer including magnetically soft pigment which is selected from $\gamma\text{-Fe}_2\text{O}_3$, Fe_3O_4 and a solid solution of these components and has a mean crystallite size of less than 10 nm.

Claim 19 (Original) The magnetic recording medium as claimed in claim 18, wherein the magnetically soft pigment has a mean crystallite size of less than 6 nm as a pigment in a lower layer of a magnetic recording medium.

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Claim 20 (Withdrawn) A process for the production of a multilayer magnetic recording medium which comprises, on a nonmagnetic substrate, at least one upper binder-containing magnetic recording layer which has a thickness of less than 0.5 μm and contains a finely divided magnetic pigment having a coercive force H_c of 100 – 250 kA/m, and at least one lower binder-containing layer which contains an isotropic magnetically soft pigment which is selected from $\gamma\text{-Fe}_2\text{O}_3$, Fe_3O_4 or a solid solution of these components and has a mean crystallite size of less than 10 nm, which comprises adding as the isotropic magnetically soft pigment in the lower layer magnetically soft pigment at least one of $\gamma\text{-Fe}_2\text{O}_3$, Fe_3O_4 and a solid solution of these components and has a mean crystallite size of less than 10 nm.

Claim 21 (Original) A magnetic tape, magnetic card or floppy disk comprising a multilayer magnetic recording medium which comprises, on a nonmagnetic substrate, at least one upper binder-containing magnetic recording layer which has a thickness of less than 0.5 μm and contains a finely divided magnetic pigment having a coercive force H_c of 100 – 250 kA/m, and at least one lower binder-containing layer which contains an isotropic magnetically soft pigment which is selected from $\gamma\text{-Fe}_2\text{O}_3$, Fe_3O_4 or a solid solution of these components and has a mean crystallite size of less than 10 nm.

Claim 22 (New) The magnetic recording medium as claimed in claim 1, wherein the isotropic magnetically soft pigment has a specific surface area determined on the basis of BET method is more than 100 m^2/g .

Claim 23 (New) The magnetic recording medium as claimed in claim 22, wherein the isotropic magnetically soft pigment has a specific surface area determined on the basis of BET method is more than 100 m^2/g .


Claim 24 (New) The process as claimed in claim 17, wherein the isotropic magnetically soft pigment has a specific surface area determined on the basis of BET method is more than 100 m^2/g .

Claim 25 (New) The process as claimed in claim 24, wherein the isotropic magnetically soft pigment has a specific surface area determined on the basis of BET method is more than 100 m^2/g .

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Claim 26 (New) The magnetic recording medium as claimed in claim 18, wherein the isotropic magnetically soft pigment has a specific surface area determined on the basis of BET method is more than $100 \text{ m}^2/\text{g}$.

Claim 27 (New) The magnetic recording medium as claimed in claim 26, wherein the isotropic magnetically soft pigment has a specific surface area determined on the basis of BET method is more than $100 \text{ m}^2/\text{g}$.

 Claim 28 (New) The magnetic recording medium as claimed in claim 20, wherein the isotropic magnetically soft pigment has a specific surface area determined on the basis of BET method is more than $100 \text{ m}^2/\text{g}$.

Claim 29 (New) The magnetic recording medium as claimed in claim 28, wherein the isotropic magnetically soft pigment has a specific surface area determined on the basis of BET method is more than $100 \text{ m}^2/\text{g}$.
